

EXHIBIT 18

DECLARATION OF ALICIA M. REED

I, Alicia M. Reed, declare as follows:

1. I am the Assistant Vice Chancellor of Research at the University of Kansas (sometimes hereafter, “KU”) in Lawrence, Kansas. I have held that position since March 2016 and have been involved in research administration at KU since 2005.

2. I have personal knowledge of the contents of this declaration or have knowledge of the matters based on my review of information and records gathered by University of Kansas personnel and could testify thereto.

3. The University of Kansas receives substantial annual funding from the National Science Foundation (“NSF”). During fiscal years 2020 through 2024, KU received (per year) an average of 200 grants, totaling to \$22.1 million and 3 cooperative agreements, totaling approximately \$5.1 million. An additional 41 subawards totaling \$2.4 million per year were received to date. In the current fiscal year (FY25), we have received \$49.8 million in funding from NSF grants and cooperative agreements.

4. The University of Kansas intends to apply for new funding awards, and/or renewals and continuations of existing funding awards, in the next year and in future years to come. We currently have 123 grant and cooperative agreement proposals pending award decisions, totaling to over \$73.4 million in funding.

5. The funding the University of Kansas receives from NSF supports critical and cutting-edge research vital to our nation’s socio-behavioral and physical well-being, ecological and agricultural security, advanced manufacturing technologies and large data advances that ensure global competitiveness. Millions of Americans benefit from and depend on this research. For example:

- a. KU researchers improve our understanding of the natural world for ecological and agricultural security. Examples of research to increase understanding of sustainable science and improve agricultural security include improved understanding around species' geographic ranges to inform conservation, resource management, and to control pest species and disease vectors; understanding microbial symbionts to guide development of regenerative agricultural systems; using host-virus evolution to identify high and low risk viral pathogens that improves animal health; exploring the conversion of carbon dioxide selectively to more valuable products; identifying safe and cost-effective battery technologies to improve energy grid storage; developing high-spatiotemporal-resolution wildland fire sensing models to reduce the frequency and impact of fires; leveraging riparian wetland vegetation to facilitate nitrogen removal; and address the societal problem of refrigerant environmental impacts. Additionally, leveraging a 2005 NSF award to develop technologies to measure the characteristics of major ice sheets and integrate these data products into computer models to predict sea level rise, the Center for Remote Sensing and Integrated Systems (CReSIS) creates and refine radars, antennas, sounders and other systems capable of surveying large areas from both large and small aircrafts to capture and manage large quantities of data through aerial systems.
- b. KU materials and physics research supports America's continued growth in the global semi-conductor and superconductor environment including technological advances including performance-cost balanced nanocomposites and frictionless transport.

- c. KU research supports large-scale data collection and technology improvements to continue to expand large data work reduce the overall cost and time necessary to perform large scale data-centric research which allows researchers to expand the number of studies as well as the scale of research. KU is a known leader in biodiversity specimens and is expanding this expertise to large-scale data in the following areas: the first genomic-scale data from ancient peoples of the Great Plains; an AI-based bee species identification tool based on compiled images of North American bee species; a public resource incorporating structural modeling with genetic amino acid variants and assessment of their functional impact; digitizing information, for use on standard biodiversity platforms, on traits from over one million mammal specimens in 19 U.S. natural history museums and from 1.1 million herbarium specimens. KU is also leveraging their polar radar expertise to lead the Open Polar Radar project to establish a software ecosystem to consolidate polar radar software and services and make the associated datasets standardized and searchable. In addition to collecting and improving access for data, KU scientists are also developing technological advances to improve big data infrastructure. Work is also ongoing to develop novel data mining and extraction methodologies and to improve materials to support neuromorphic computing to leverage pattern recognition and unstructured data sorting.
- d. NSF researchers at KU study many elements of behavioral and physical health to gain generalizable knowledge and develop approaches that lead to successful social and physical outcomes for Americans. Ongoing research into a variety of

linguistics areas including understanding and addressing differences in language adaptation and acquisition and the impact this has on individuals, such as understanding adaptations and stressors for native and non-native speakers and listeners to reduce second language stress; using advanced speech processing algorithms to improve early childhood education; and understanding the way peoples' speech processing changes across the lifespan to under the human aging process. Research on economic factors include studies to understand career barriers and trajectories for Americans to assist in increasing job market success and support to further cooperation between research, multiple Science, Technology, Engineering and Math (STEM) training and programs to broaden participation and education for American students to enhance and ensure a competitive American workforce, and programs for health economists and the Midwestern health community to consider the specific health challenges of the Midwest/Great Plains states. American's physical health is directly improved by research that seeks increased understanding of genetic impacts on human health, including improving understanding of complex trait evolution, immune defense diverges between species to improve immune response, the basis of intragenomic parasites, which are associated with general biological processes and human health issues, and the development of new strategies for genetic manipulation through purposeful introduction of DNA. Technological advances developed during research on new environmentally sustainable processes for chemical manufacturing can improve the manufacturing of pharmaceutical agents and research on digital

microfluidics (DMF) can lead to improved detection of elements in human blood and urine for improve diagnostic results.

- e. Additional research contributions include research capacity improvements and ecosystem development for the State of Kansas and the Midwest through the direct efforts of the NSF Established Program to Stimulate Competitive Research (EPSCoR) program which had led development of the State's Science and Technology policy.

6. Reimbursement of University of Kansas's indirect costs is essential for supporting this research. NSF's cutting of indirect cost rates to 15% would preclude carrying out the kinds of research projects described in paragraph 5 in the future.

7. Indirect costs include procurement and maintenance of specialized laboratories; specialized facilities for specimen storage and management; specialized equipment and field vehicle fleets; and the high-performance computer facilities and related infrastructure required to support this critical research. Without this critical infrastructure, we simply cannot conduct the research.

8. For example, with respect to the areas of research described in Paragraph 4:

- a. Specialized laboratories to perform research in chemistry, physics, and engineering and the related environmental health and safety compliances incumbent in this work to support life science, physical science, and materials work.
- b. Specialized facilities for specimen storage and management for work performed in the Biodiversity Institute at KU, which includes curated collections of over 11 million plant, animal, and fossil specimens.

- c. Radar, antenna, and drone equipment and related storage, as well as a fleet of specialized vehicles necessary to perform geological and biological research.
- d. Advanced large data storage and processing facilities are necessary for the modeling and analysis work, as well as the large data curation and hosting which includes custom facilities to house the necessary high-performance computing clusters, specialized software, and secured data storage.

9. Physical facilities costs are one of the largest components of indirect costs. This includes not only the usual costs of constructing and maintaining buildings where research occurs, but the very high costs of outfitting and maintaining specialized laboratory space, which can require special security, advanced HVAC systems, specialized plumbing, electrical systems and waste management, as well as specialized laboratory equipment. Facilities with special foundations and shelves to bear the weight of the large specimen collection and can maintain the correct humidity and temperature balance to ensure specimen integrity are very expensive to maintain. The features and amount of space available to researchers have a direct and obvious impact on the nature and the amount of research that can be done at the University of Kansas.

10. In addition, indirect costs fund the administration of awards, including staff who ensure compliance with a vast number of regulatory mandates from agencies such as NSF. These mandates serve many important functions, including ensuring research integrity; protecting research subjects; properly managing and disposing of chemical and biological agents and other materials used in research; managing specialized procurement and security requirements for sensitive research; managing funds; preventing technologies and other sensitive national security information from being inappropriately accessed by foreign adversaries; providing the high level of cybersecurity, data storage, and computing environments mandated for regulated data; ensuring

compliance with specialized security protocols and safety standards; maintaining facility accreditation and equipment calibration to meet research quality and security standards; and preventing financial conflicts of interest.

11. Recovery of University of Kansas's indirect costs is based on predetermined rates that have been contractually negotiated with the federal government.

12. Through fiscal year 2024,¹ the predetermined indirect cost rates are 53% for research and development activities taking place on the University of Kansas (Lawrence campus), and 26% for research and development activities performed primarily off campus. These rates are applied to the modified total direct costs as outlined in the CFR.

13. The effects of a reduction in the indirect cost rate to 15% would be devastating. Of the \$49.8 million in NSF funding that the University of Kansas has received in fiscal year 2025, approximately \$ 37.3 million consisted of payment of direct costs, \$2.5 million was received under subawards, and \$9.9 million consisted of reimbursement of indirect costs. Similarly, in fiscal year 2026, the University of Kansas expects to receive \$41.9 million in NSF funding for direct costs and \$10.4 million in NSF funding for indirect costs. And over the next five years, the University of Kansas anticipates receiving an average of \$46.3 million from the NSF for annual direct costs. Based on the predetermined indirect cost rate of 53%, which was agreed upon by the federal government as of 2021 and applying that rate to the direct costs (as modified pursuant to the CFR), the University of Kansas reasonably expects to receive approximately \$11.5 million in indirect cost recovery on an annual basis over the next five years.

14. If—contrary to what the University of Kansas has negotiated with the federal government—the indirect cost rate was reduced to 15% for new awards, that would significantly

¹ KU-Lawrence is in current negotiations with DHHS for a rate that would be retroactive to FY25.

reduce University of Kansas's anticipated annual indirect cost recovery. For example, applying the 15% rate to the anticipated modified direct costs over the next five years, the University of Kansas's anticipated annual indirect cost recovery would be reduced by \$ 8.3 million per year (over \$42 million in 5 years): from \$11.5 million each year to \$3.2 million a year.

15. This reduction would have deeply damaging effects on the University of Kansas's ability to conduct research from day one. Many of KU's current research projects will be forced to slow down or cease abruptly if forced to apply for renewals at the 15% indirect cost cap. Most critically, it will make it difficult, or impossible, for KU-L to maintain the specialized facilities and sustain the workforce necessary to perform required regulatory compliance activities to fulfill the research requirements of the federal agencies. For example:

16. Additional immediate harms to the University of Kansas would be the:
- a. Inability to continue critical state, regional, and national scientific strategic planning and policy development. These activities are often performed by program project directors, such as the EPSCoR program and EARTH Engineering Research Center. These program projects require significant and mandatory institutional commitment of resources, facilities, and faculty and staff time, and thus could not be maintained at a 15% indirect recovery rate.
 - b. Significant decrease in workforce development activities currently occurring in research projects and in training-focused initiatives like the Graduate Research Fellowship Programs and Research Experience programs. Students who are currently being trained at KU to become successful and competitive science and technology workers will no longer be nationally and globally competitive due

to lack of training opportunities and funding to support these types of high-investment training.

17. The University of Kansas has for decades relied on the payment of indirect costs. And until now, we have been able to rely on the well-established process for negotiating indirect cost rates with the government to inform our budgeting and planning. Operating budgets rely on an estimate of both direct and indirect sponsored funding to plan for annual staffing needs (*e.g.*, post-docs, PhD students, and other research staff), infrastructure support (*e.g.*, IT networks, regulatory compliance, and grant management support), and facility and equipment purchases. And in some cases, the University of Kansas has long-term obligations—for example, commitment toward tenured faculty salaries, post-doctoral trainees, and infrastructure investments to support NSF-funded equipment purchases—and it relies on budgeted grant funding, including associated indirect cost recovery, to fulfill these commitments. This multi-year budgeting process also assumes the availability or possibility of grant renewals at roughly similar terms – and certainly at the negotiated indirect cost rate – as had been previously available.

18. In addition to the immediate effects and reliance interests described above, dramatically cutting indirect cost reimbursement would have longer-term effects that are both cumulative and cascading. KU would not be able to propose or accept new funding if compliance monitoring staff are reduced or specialized facilities cannot be maintained and upgraded. Even if funding were to be restored, even a brief hiatus would result in a reduction of highly trained compliance experts and deferred maintenance costs for facilities.

19. As of today, the University of Kansas has over 123 grant and cooperative agreement proposals pending award decisions and we continue to submit new proposals every week. The 15% rate cap will make many of these projects untenable in light of the budgetary cost reallocations

among competing research projects. This puts the University in an impossible position: If the University of Kansas tries to use its negotiated indirect cost rate in new proposals, which it believes it is entitled to do, it runs a serious risk of having its proposals rejected and losing the ability to conduct critical research. If, on the other hand, the University of Kansas were to accede to the unilaterally imposed 15% rate for its proposals, it would be committing to conduct research based on a financially unsustainable model.

20. Disruptions to University of Kansas's research will also have negative effects in the Lawrence area, the state of Kansas, and the broader region. In 2024, KU employed 3,829 people on federally funded research grants; 695 of these individuals were employed on NSF awards. KU collaborates with state and local partners to help solve regional challenges through joint research and innovation including the KU Innovation Park, a University-City-County partnership to support small start-ups and turn federal research investments into direct benefits for the region and the nation. University of Kansas's research also fuels spending in the regional economy, including by driving discoveries that launch new ventures, attract private investment, and make a positive social impact. A massive reduction in the University of Kansas's research budget would immediately and seriously jeopardize these contributions to the local region.

21. Finally, slowdowns or halts in research by the University of Kansas and other American universities will allow competitor nations that are maintaining their investments in research to surpass the United States on this front, threatening both our Nation's national security and its economic dominance.

22. The University of Kansas cannot cover the funding gap itself. While KU-L maintains an endowment, the KU Endowment is neither feasible nor sustainable for KU-L to use

endowment funds or other revenue sources to offset shortfalls in indirect cost recovery, for several reasons:

- a. Nearly every dollar entrusted to KU Endowment contains donor restrictions. Donors make gifts to KU Endowment for specific purposes, including scholarships, professorships, buildings, or other purposes. The terms of these gifts create legal duties that KU Endowment's trustees and employees are obligated to observe. If a donor gives money to fund a scholarship for literature majors, those funds can only be used for that purpose.
- b. KU-L is not legally permitted to use those donor-designated funds to cover research infrastructure costs.

23. It is also not feasible or sustainable for the University of Kansas to use other revenue sources to offset shortfalls in indirect cost recovery. As a non-profit institution, KU-L reinvests nearly all its revenue into mission-critical activities, leaving little margin to absorb unexpected funding gaps. In other words, unlike for-profit organizations, KU-L does not generate significant surpluses that could be redirected without impacting core academic priorities such as educational programs and financial aid support for students.

In other words, unlike for-profit organizations, the University of Kansas does not generate significant surpluses that could be redirected without impacting core academic priorities such as educational programs and financial aid support for students. Absorbing the cost of a lower indirect cost rate, even if it were possible, would create long-term budget pressures on the University of Kansas—which would in turn force reductions in key investments supporting University of Kansas's faculty, students, staff, research, and teaching infrastructure, as well as other critical activities needed to maintain University of Kansas's academic excellence. So even if the

University of Kansas could “cover” some of the indirect costs previously funded by NSF, it could do so only by negatively affecting other critical goals central to the institution’s mission.

24. If the University of Kansas’s can no longer apply for NSF grants because it is unable to accept the new indirect cost rate cap – a risk that would impact 100% of our NSF grants – the harms described herein would be exacerbated. That greater loss in funding from NSF would mean more significant cost-cutting measures would need to be adopted—and quickly. University of Kansas cannot “float” all the indirect costs it would likely lose coverage for – nor could it float NSF grants altogether if it is not able to accept the 15% cap – so some research projects would need to be terminated altogether, and others would need to be scaled down or pared back significantly. The process of identifying these cuts would need to begin immediately, and layoffs, closures, and research pauses or contractions would follow soon thereafter. Cutting back on University of Kansas’s diverse research in fields as summarized in section 5 will also have long-term implications on national security and the American economy.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on May 7, 2025, at Lawrence, KS.



Alicia M. Reed